

Quiz #7 - LEED Green Associate

GA02 – Pgs. 257-258

GA09 – Pgs. 51-63

GBLCC Section 4: Green Building Core Concepts and Application Strategies: Water Efficiency

1. Which of these fixtures eliminates the demand for potable water entirely? [Choose two]
 - A. Low-flow lavatories
 - B. Waterless urinals
 - C. Dual-flush toilets
 - D. Composting toilets
 - E. High-efficiency- toilets

2. What can captured rainwater and treated graywater be used for in place of potable water? [Choose three]
 - A. Swimming pools
 - B. Irrigation
 - C. Dishwashers
 - D. Toilet and urinal flushing
 - E. Cooling towers

3. How can a water end-use profile help a project team? [Choose two]
 - A. Identifies the projects largest users of water
 - B. Saves the owner money
 - C. Evaluates cost-effectiveness of conservation strategies
 - D. Reduces design decision time and cost
 - E. Guarantees the project will earn LEED points for Water Efficiency credits

4. Which of these use process water? [Choose three]
 - A. Toilets
 - B. Urinals
 - C. Cooling tower
 - D. Washing machine
 - E. Dishwasher

5. What standard for high-efficiency fixtures specifies fixtures that use less water than those specified by the Energy Policy Act (EPA) of 1992?
 - A. ENERGY STAR
 - B. WaterSense
 - C. Water Budget
 - D. WaterWise
 - E. GreenScore

6. Which of these are strategies for reducing indoor water use? [Choose three]
 - A. High-efficiency plumbing fixtures
 - B. Submeters
 - C. Reverse-osmosis (RO) water purifier
 - D. Captured rainwater
 - E. Use nonpotable water
 - F. Captured graywater

7. Which of these are sources of nonpotable water? [Choose three]
- A. Captured rainwater
 - B. Well water
 - C. Captured graywater
 - D. Municipally supplied water
 - E. Municipally supplied reclaimed water
8. When selecting plants for landscaping to reduce potable water demand for irrigation what strategy should project teams use?
- A. Native and adapted
 - B. Local Nursery
 - C. Wild flowers
 - D. Indigenous
9. What landscaping design supports water efficiency goals by selecting the use of drought-tolerant plants along with rocks, mulch, and other landscaping elements in order to eliminate the need for irrigation?
- A. SmartTechnology
 - B. Evapotranspiration
 - C. WaterSense
 - D. Xeriscaping
 - E. Drip irrigation
10. What is the best approach for a high-performance irrigation system design for channeling water directly to the plants?
- A. Bubblers
 - B. Sprinklers
 - C. Weather-based controllers
 - D. Purple pipe
 - E. Submetering
11. When determining WE Prerequisite Outdoor Water Use Reduction which of these may be included or excluded from the landscaped area calculations at the project team's discretion? [Choose two]
- A. Permeable pavement
 - B. Asphalt parking lot
 - C. Food garden
 - D. Impermeable pavement patio
 - E. Crushed rock pathway
 - F. Athletic field
12. Projects using a strategy that does not require a permanent irrigation system for all landscaping must remove any temporary irrigation within what time period?
- A. Six-month
 - B. One-year
 - C. Two-year
 - D. Five-year
13. For WE Prerequisite Outdoor Water Use Reduction the project's calculated landscape water requirement reduction from baseline can be attributed to which of these? [Choose two]
- A. Recycled graywater
 - B. Captured rainwater
 - C. Irrigation system efficiency
 - D. Plant species selection
 - E. Reduced landscape area

14. WE Prerequisite Outdoor Water Use Reduction requires all projects to reduce the landscape water requirement from baseline by what percentage?
- A. 20%
 - B. 30%
 - C. 40%
 - D. 50%
15. Which of these is used to calculate the project's landscape water requirement and reduction from baseline for WE Prerequisite Outdoor Water Use Reduction?
- A. WaterSense
 - B. WaterSense Water Budget Tool
 - C. EPAct
 - D. WaterWise
16. WE Prerequisite Indoor Water Use Reduction requires all projects to reduce the indoor water consumption from baseline by what percentage?
- A. 20%
 - B. 30%
 - C. 40%
 - D. 50%
17. WE Prerequisite Indoor Water Use Reduction requires that all newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible must have what label?
- A. WaterSense
 - B. WaterSense Water Budget Tool
 - C. EPAct
 - D. WaterWise
18. What is the baseline water use for water closets?
- A. 0.8 gallons per flush
 - B. 1.0 gallons per flush
 - C. 1.6 gallons per flush
 - D. 3.2 gallons per flush
19. What standard for fixture performance must be used to calculate the Baseline Case for Water Use Reduction credits?
- A. ASHRAE Standard 90.1
 - B. SMACNA Guidelines
 - C. EPAct
 - D. WaterSense
20. Which of the following is effective at reducing potable water consumption indoors?
- A. Installing fixtures that meet the EPAct 1992 standard
 - B. Installing low-consumption flush fixtures and low-flow rate faucets
 - C. Increasing potable water demand
 - D. Implementing cooling tower water management

21. A project team is designing an office building to achieve 35% indoor potable water use savings. What project information is needed to calculate the baseline that will be used to gage the project's total potable Water Use Reduction? [Choose three]
- A. Daily uses
 - B. Annual rainwater
 - C. Flow rate of fixtures
 - D. Gray water use rates
 - E. Occupancy
22. What is the baseline water use for a public lavatory faucet?
- A. 1.0 gpm
 - B. 0.5 gpm
 - C. 2.2 gpm
 - D. 2.5 gpm
23. What is the baseline water use for a private lavatory faucet?
- E. 1.0 gpm
 - F. 0.5 gpm
 - G. 2.2 gpm
 - H. 2.5 gpm
24. What standard must residential clothes washer meet for WE Prerequisite Indoor Water Use Reduction?
- A. CEE Tier 3A
 - B. SMACNA Guidelines
 - C. EPAAct
 - D. WaterSense
 - E. ENERGY STAR
25. What standard must commercial clothes washer meet for WE Prerequisite Indoor Water Use Reduction?
- A. CEE Tier 3A
 - B. SMACNA Guidelines
 - C. EPAAct
 - D. WaterSense
 - E. ENERGY STAR
26. For a LEED BD+C: Hospitality project which of these water-consuming appliances must be included in WE Prerequisite Indoor Water Use Reduction? [Choose three]
- A. Dishwasher
 - B. Food Steamer
 - C. Food waste disposer
 - D. Combination oven
27. WE Prerequisite Building-Level Water Metering requires that projects measure total potable water use for which of these? [Choose two]
- A. Irrigation
 - B. Building
 - C. Domestic hot water
 - D. Domestic cold water
 - E. Toilets and urinals

28. What period of time must projects commit to share with USGBC the whole-project water usage data for WE Prerequisite Building-Level Water Metering?
- A. One-year
 - B. Two-year
 - C. Five-year
 - D. Not required
29. For WE Credit Outdoor Water Use Reduction additional landscape water requirement (LWR) reductions from the calculated baseline beyond the prerequisite requirement may be achieved using any combination of which of these strategies? [Choose two]
- A. Alternative water sources
 - B. Smart scheduling technologies
 - C. WaterSense
 - D. Xeriscaping
30. Potable water comes from what sources? [Choose 2]
- A. Cooling towers
 - B. Wells
 - C. Municipal water supply
 - D. Stormwater cisterns
31. A LEED BD+C: New Construction project has 400 full-time (40 hrs/wk) and 200 part-time (10 hrs/wk) employees. How many Full Time Equivalent (FTE) must be included for indoor water efficiency calculations?
- A. 400
 - B. 450
 - C. 500
 - D. 600
32. A LEED BD+C: Schools project has reduced from the calculated baseline the indoor water use by 50%. How many points could the project earn?
- A. 5 points for WE Credit Indoor Water Use Reduction and 1 IN Credit Innovation point
 - B. 6 points for WE Credit Indoor Water Use Reduction and 1 IN Credit Innovation point
 - C. 5 points for WE Credit Indoor Water Use Reduction
 - D. 6 points for WE Credit Indoor Water Use Reduction
33. Which of these concerns in the condenser water system for cooling towers are controlled by WE Credit Cooling Tower Water Use? [Choose three]
- A. Temperature
 - B. Blowdown
 - C. Microbes
 - D. Corrosion
 - E. Scale
34. For WE Credit Water Metering projects must at a minimum install permanent meters for water systems serving what percentage of the irrigated landscaped area?
- A. 50%
 - B. 75%
 - C. 80%
 - D. 100%

35. To satisfy the requirements for WE Credit Water Metering projects can install permanent water meters on which of these water subsystems? [Choose three]

- A. Indoor plumbing fixtures and fittings
- B. Process water
- C. Water closets and urinals
- D. Showerheads
- E. Reclaimed water
- F. Swimming pools